

**JN757 in Toluene**

Version 2.0

Revision Date 05/28/2015

Ref. 130000050171

This SDS adheres to the standards and regulatory requirements of the United States and may not meet the regulatory requirements in other countries.

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : JN757 in Toluene
Tradename/Synonym : MOB00769
JN757 Intermediate
Methyl 5-Chloro-1-Oxo-2-Indancarboxylate

Product Use : Industrial chemical

Restrictions on use : Do not use product for anything outside of the above specified uses

Manufacturer/Supplier : DuPont
4417 Lancaster Pike
Wilmington, DE 19805, USA

Product Information : 1-800-441-7515 (outside the U.S. 1-302-774-1000)
Medical Emergency : 1-800-441-3637 (outside the U.S. 1-302-774-1139)
Transport Emergency : CHEMTREC: +1-800-424-9300 (outside the U.S. +1-703-527-3887)

SECTION 2. HAZARDS IDENTIFICATION**Product hazard category**

Flammable liquids	Category 2
Skin irritation	Category 2
Serious eye damage/eye irritation	Category 2A
Reproductive toxicity	Category 2
Specific target organ toxicity - single exposure	Category 3
Specific target organ toxicity - repeated exposure	Category 2
Aspiration hazard	Category 1

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Label content

Pictogram

:



Signal word

: Danger

Hazardous warnings

: Highly flammable liquid and vapour.
May be fatal if swallowed and enters airways.
Causes skin irritation.
Causes serious eye irritation.
May cause respiratory irritation.
May cause drowsiness or dizziness.
Suspected of damaging fertility or the unborn child.
May cause damage to organs through prolonged or repeated exposure.
(Central nervous system)

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Hazardous prevention measures

: Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Keep container tightly closed.
Ground/bond container and receiving equipment.
Use explosion-proof electrical/ ventilating/ lighting/ equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
Wash skin thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Wear protective gloves/ eye protection/ face protection.
Use personal protective equipment as required.
IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.
IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing.
Rinse skin with water/ shower.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
IF exposed or concerned: Get medical advice/ attention.
Do NOT induce vomiting.
If skin irritation occurs: Get medical advice/ attention.
If eye irritation persists: Get medical advice/ attention.
Take off contaminated clothing and wash before reuse.
In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.
Store in a well-ventilated place. Keep container tightly closed.
Store in a well-ventilated place. Keep cool.
Store locked up.
Dispose of contents/ container to an approved waste disposal plant.

Other hazards

The following percentage of the mixture consists of ingredient(s) with unknown acute toxicity: 25 %

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SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS-No.	Concentration
Toluene	108-88-3	75 %
Methyl 5-Chloro-1-Oxo-2-Indancarboxylate	65738-56-9	25 %

SECTION 4. FIRST AID MEASURES

- General advice : Never give anything by mouth to an unconscious person.
- Inhalation : If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a poison control center or doctor for treatment advice.
- Skin contact : Take off all contaminated clothing immediately. Rinse skin immediately with plenty of water for 15-20 minutes. Wash contaminated clothing before re-use.
- Eye contact : Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
- Ingestion : Have person sip a glass of water if able to swallow. DO NOT induce vomiting unless directed to do so by a physician or poison control center. Never give anything by mouth to an unconscious person. Call a poison control center or doctor for treatment advice.
- Most important symptoms/effects, acute and delayed : No applicable data available.
- Protection of first-aiders : No applicable data available.
- Notes to physician : No applicable data available.

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SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Unsuitable extinguishing media : No applicable data available.
- Specific hazards : No applicable data available.
- Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.
- Further information : No applicable data available.

SECTION 6. ACCIDENTAL RELEASE MEASURES

NOTE: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

- Safeguards (Personnel) : Evacuate personnel, thoroughly ventilate area, use self-contained breathing apparatus. Use personal protective equipment.
- Environmental precautions : Prevent material from entering sewers, waterways, or low areas.
- Spill Cleanup : Soak up with sand, oil dry, or other noncombustible absorbent materials. Dispose of in an approved container. If liquid has been spilt in large quantities clean up promptly by scoop or vacuum.
Soak up with sawdust, sand, oil dry or other absorbent material. Dispose of in an approved container. If liquid has been spilt in large quantities clean up promptly by scoop or vacuum.
- Accidental Release Measures : Dispose of in accordance with local regulations.

SECTION 7. HANDLING AND STORAGE



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- Handling (Personnel) : Avoid contact with skin, eyes and clothing. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Avoid breathing dust or vapour.
- Handling (Physical Aspects) : Keep away from open flames, hot surfaces and sources of ignition.
- Dust explosion class : No applicable data available.
- Storage : Store in a cool, dry, well-ventilated area. Do not store or consume food, drink or tobacco in areas where they may become contaminated with this material.
- Storage period : No applicable data available.
- Storage temperature : No applicable data available.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

- Engineering controls : Ensure adequate ventilation.
- Personal protective equipment
- Respiratory protection : During abnormal exposures or when there is a chance that the AEL will be exceeded, use NIOSH approved respiratory protection.
- Hand protection : Material: Protective gloves
- Eye protection : Wear protective eyewear to prevent contact with this substance.
- Skin and body protection : Wear protective clothing such as gloves, apron, boots, or coveralls, as appropriate.

Exposure Guidelines Exposure Limit Values

Toluene			
Permissible exposure limit:	(OSHA)	200 ppm	TWA
Permissible exposure limit:	(OSHA)	300 ppm	TLV-C
Permissible exposure limit:	(OSHA)	500 ppm	MAX. CONC
TLV	(ACGIH)	20 ppm	TWA
AEL *	(DUPONT)	20 ppm	8 & 12 hr. TWA

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Biological Exposure Indices

Toluene BEI	(ACGIH)	0.3 mg/g o-Cresol, with hydrolysis/Creatinine in urine Sampling time: End of shift.
BEI	(ACGIH)	0.02 mg/l Toluene/Blood Sampling time: Prior to last shift of work week.
BEI	(ACGIH)	0.03 mg/l Toluene/Urine Sampling time: End of shift.

* AEL is DuPont's Acceptable Exposure Limit. Where governmentally imposed occupational exposure limits which are lower than the AEL are in effect, such limits shall take precedence.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical state	: liquid
Form	: liquid
Color	: dark amber

Odor : No applicable data available.

Odor threshold : No applicable data available.

pH : No applicable data available.

Melting point/freezing point : 69.5 - 72 °C (157.1 - 162 °F)

Boiling point/boiling range : 111 °C (232 °F)

Flash point : 4 °C
(for a component of this mixture)

Evaporation rate : No applicable data available.

Flammability (solid, gas) : No applicable data available.

Upper explosion limit : 7.1 vol%

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Lower explosion limit	: 1.1 vol%
Vapour Pressure	: No applicable data available.
Vapour density	: No applicable data available.
Specific gravity (Relative density)	: No applicable data available.
Water solubility	: insoluble
Solubility(ies)	: No applicable data available.
Partition coefficient: n-octanol/water	: No applicable data available.
Auto-ignition temperature	: No applicable data available.
Decomposition temperature	: No applicable data available.
Viscosity, kinematic	: No applicable data available.
Viscosity, dynamic	: No applicable data available.

SECTION 10. STABILITY AND REACTIVITY

Reactivity	: No applicable data available.
Chemical stability	: No applicable data available.
Possibility of hazardous reactions	: No applicable data available.
Conditions to avoid	: Avoid contact with: Heat, flames and sparks. Elevated temperature
Incompatible materials	: Acids, bases and strong oxidizing agents
Hazardous decomposition products	: Decomposes with heat., Hazardous decomposition products, Carbon oxides, Gaseous hydrogen chloride (HCl).

SECTION 11. TOXICOLOGICAL INFORMATION

Toluene	
Inhalation 4 h LC50	: 28.1 mg/l , Rat



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Target Organs: Central nervous system
narcosis

Dermal LD50	:	> 5,000 mg/kg , Rabbit
Oral LD50	:	5,580 mg/kg , Rat
Skin irritation	:	Irritating to skin., Rabbit
Eye irritation	:	No eye irritation, Rabbit slight irritation
Skin sensitization	:	Does not cause skin sensitisation., Guinea pig Does not cause respiratory sensitisation.,
Repeated dose toxicity	:	Oral Rat - Target Organs: Central nervous system Central nervous system effects Inhalation human - Target Organs: Central nervous system Central nervous system effects
Carcinogenicity	:	Not classifiable as a human carcinogen. Animal testing did not show any carcinogenic effects.
Mutagenicity	:	Animal testing did not show any mutagenic effects. Tests on bacterial or mammalian cell cultures did not show mutagenic effects.
Reproductive toxicity	:	Suspected human reproductive toxicant No effects on or via lactation Animal testing showed no reproductive toxicity.
Teratogenicity	:	Has been reported to cause: Foetal malformations
Methyl 5-Chloro-1-Oxo-2-Indancarboxylate		
Dermal LD50	:	> 2,500 mg/kg , Rat

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Oral LD50	:	> 5,000 mg/kg , Rat
Skin irritation	:	No skin irritation, Rabbit
Eye irritation	:	Eye irritation, Rabbit
Skin sensitization	:	Does not cause skin sensitisation., Guinea pig
Mutagenicity	:	Did not cause genetic damage in cultured bacterial cells.

Carcinogenicity

The carcinogenicity classifications for this product and/or its ingredients have been determined according to HazCom 2012, Appendix A.6. The classifications may differ from those listed in the National Toxicology Program (NTP) Report on Carcinogens (latest edition) or those found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs (latest edition).

None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, or OSHA, as a carcinogen.

SECTION 12. ECOLOGICAL INFORMATION**Aquatic Toxicity
Toluene**

96 h LC50	:	Oncorhynchus mykiss (rainbow trout) 5.5 mg/l
72 h EC50	:	Pseudokirchneriella subcapitata (microalgae) 12.5 mg/l
48 h EC50	:	Ceriodaphnia dubia (water flea) 3.78 mg/l
40 d	:	NOEC Fish (unspecified species) 1.39 mg/l
7 d	:	NOEC Ceriodaphnia dubia (water flea) 0.74 mg/l

SECTION 13. DISPOSAL CONSIDERATIONS

Waste disposal methods - Product : Treatment, storage, transportation, and disposal must be in accordance with applicable federal, state/provincial, and local regulations.

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Contaminated packaging : No applicable data available.

SECTION 14. TRANSPORT INFORMATION

DOT	UN number	: 1294
	Proper shipping name	: Toluene mixture (Toluene)
	Class	: 3
	Packing group	: II
	Labelling No.	: 3
	Reportable Quantity	: 1000 lbs Toluene
IATA_C	UN number	: 1294
	Proper shipping name	: Toluene mixture
	Class	: 3
	Packing group	: II
	Labelling No.	: 3
IMDG	UN number	: 1294
	Proper shipping name	: TOLUENE MIXTURE
	Class	: 3
	Packing group	: II
	Labelling No.	: 3

SECTION 15. REGULATORY INFORMATION

Other regulations	: Product or component subject to TSCA 5(e) Consent Order or TSCA Significant New Use Rule (SNUR)
SARA 313 Regulated Chemical(s)	: Toluene
PA Right to Know Regulated Chemical(s)	: Substances on the Pennsylvania Hazardous Substances List present at a concentration of 1% or more (0.01% for Special Hazardous Substances): Toluene
NJ Right to Know Regulated Chemical(s)	: Substances on the New Jersey Workplace Hazardous Substance List present at a concentration of 1% or more (0.1% for substances identified as carcinogens, mutagens or teratogens): Toluene

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Title III hazard classification : Acute Health Hazard: Yes
Chronic Health Hazard: Yes
Fire: Yes
Reactivity/Physical hazard: Yes
Pressure: Yes

CERCLA Reportable Quantity : 1333 lbs
Based on the percentage composition of this chemical in the product.:
Toluene

SECTION 16. OTHER INFORMATION

Restrictions for use : Commercial use of this material is a violation of Federal law. This material is for research and development use only. It is being supplied under the exemption for research and development under the Toxic Substances Control Act (TSCA) and/or the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA).

Revision Date : 05/28/2015

Contact person : DuPont Crop Protection, Wilmington, DE, 19898, Phone: 1-888-638-7668

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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