

MATERIAL SAFETY DATA SHEET

SECTION 1 : CHEMICAL PRODUCT AND COMPANY IDENTIFICATION	
IDENTIFICATION OF SUBSTANCE	1,3 - ACETONEDICARBOXYLIC ACID
SYNONYMS	3 - OXOGLUTARIC ACID
NAME OF THE MANUFACTURER/ SUPPLIER	OMKAR SPECIALITY CHEMICALS LTD.
ADDRESS FOR CORRESPONDENCE	F-24, MIDC, Badlapur (E), Dist.Thane - 421503 State: Maharashtra (India)
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SECTION 2 : COMPOSITION AND INFORMATION ON INGREDIENT	
CHEMICAL NAME	1,3 - ACETONEDICARBOXYLIC ACID
CAS NO.	542-05-2
EINECS NO.	208-797-9

SECTION 3 : HAZARD IDENTIFICATION

APPEARANCE	WHITE SOLID.
CAUTION	HANDLE CAREFULLY BECAUSE PROPERTIES HAVE NOT BEEN THOROUGHLY INVESTIGATED.

POTENTIAL HEALTH EFFECTS

EYE	MAY CAUSE IRRITATION
SKIN	MAY CAUSE IRRITATION
INGESTION	MAY CAUSE IRRITATION IF SWALLOWED
INHALATION	MAY CAUSE IRRITATION IF INHALED

SECTION 4 : FIRST-AID MEASURES	
EYE	IMMEDIATELY FLUSH EYES WITH PLENTY OF WATER FOR ATLEAST 15 MINUTES OCCASIONALLY LIFTING LOWER & UPPER EYE LIDS. GET MEDICAL AID IMMEDIATELY.
SKIN	FLUSH SKIN WITH PLENTY OF SOAP AND WATER AT LEAST FOR 15 MINUTES.
INGESTION	IF VICTIM IS CONSCIOUS AND ALERT, GIVE 2-4 CUPFULS OF MILK OR WATER. GET MEDICAL AID IMMEDIATELY. WASH MOUTH OUT WITH WATER.
INHALATION	GET MEDICAL AID IMMEDIATELY. REMOVE FROM EXPOSURE AND REMOVE TO FRESH AIR IMMEDIATELY. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN.

ALWAYS SEEK MEDICAL AID IMMEDIATELY. CONSULT NEAREST POSION CONTROL CENTRE OR PHYSICIAN WHO IS FAMILIAR WITH CHEMICALS AND ITS AFTER EFFECTS.
NOTES TO PHYSICIAN: TREAT SYMPOTOMATICALLY & SUPPORTIVELY. ALL FIRST – AID PROCEDURES SHOULD BE PERIODICALLY REVIEWED BY AN EXPERIENCED PHYSICIAN.

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SECTION 5 : FIRE – FIGHTING MEASURES

GENERAL INFORMATION	AS IN ANY FIRE, WEAR A SELF-CONTAINED BREATHING APPARATUS MSHA/NIOSH (APPROVED OR EQUIVALENT) & FULLY PROTECTIVE GEAR. DURING FIRE TOXIC GASES MAY BE GENERATED.
EXTINGUISHING MEDIA	USE CARBON DIOXIDE OR EXTINGUISHING MEDIA SHOULD BE APPROPRIATE TO SURROUNDING FIRE CONDITIONS.
FLASH POINT °C	>110
AUTOIGNITION TEMP.	NOT AVAILABLE
EXPLOSION LIMIT, LOWER / UPPER	NOT AVAILABLE

SECTION 6 : ACCIDENTAL RELEASE MEASURES

GENERAL INFORMATION	<p>USE PROPER PERSONAL PROTECTIVE SAFETY EQUIPMENTS AS INDICATED IN SECTION 8. PROVIDE VENTILLATION.</p> <p>ISOLATE HAZARD AREA. COLLECT ALL THE MATERIAL IN A SUITABLE LABELED DISPOSAL CONTAINER & NOTIFY GOVERNMENT OCCUPATIONAL HEALTH, SAFETY AND ENVIRONMENTAL AUTHORITIES.</p> <p>REVIEW FEDERAL / STATE / LOCAL GOVERNMENT REQUIREMENT PRIOR TO DISPOSAL. SWEEP UP / CLEAN AREA AFTER MATERIAL PICK-UP IS COMPLETED.</p>
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SECTION 7 : HANDLING & STORAGE

HANDLING	USE ONLY IN A WELL VENTILATED AREA. AVOID DUST GENERATION. USE ALL PROTECTIVE SAFETY EQUIPMENTS.
STORAGE	KEEP AWAY FROM HEAT, SPARKS, OPEN FLAME, SOURCES OF IGNITION, INCOMPATIBLE MATERIALS. STORE IN A COOL / DRY PLACE BELOW 10°C. CONTAINER SHOULD NOT BE TIGHTLY CLOSED TO AVOID OVERPRESSURE, WHICH CAN RESULT FROM SLOW DECARBOXYLATION OF THE PRODUCT .

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SECTION 8 : EXPOSURE CONTROL & PERSONAL PROTECTION

EXPOSURE TO THIS MATERIAL CAN BE CONTROLLED IN MANY WAYS. THE MEASURES APPROPRIATE FOR A PARTICULAR WORKSITE DEPEND ON HOW THIS MATERIAL IS USED AND ON TO THE EXTENT OF EXPOSURE. THIS GENERAL INFORMATION CAN BE USED TO HELP DEVELOP SPECIFIC CONTROL MEASURES. ENSURE THAT, THE CONTROL SYSTEMS ARE PROPERLY DESIGNED AND MAINTAINED. AVOID PROLONGED OR REPEATED EXPOSURE. COMPLY WITH OCCUPATIONAL, ENVIRONMENTAL, FIRE AND OTHER APPLICABLE REGULATIONS.

USE ALL PROTECTIVE SAFETY EQUIPMENTS SUCH AS SAFETY GOGGLES, [AS PER OSHA'S EYE & FACE PROTECTION REGULATIONS IN 29 CFR 1910.133 OR EUROPEAN STANDARD EN166], PROPER CLOTHINGS, SAFETY SHOES, APPROVED RESPIRATORS THAT MEETS OSHAS'S 29CFR 1910.134 & ANSIZ88.2 REQUIREMENTS OR EUROPEAN STANDARD EN 149 REQUIREMENTS. ALWAYS CLEAN USED SAFETY EQUIPMENTS BEFORE REUSE.

ENGINEERING METHODS TO CONTROL EXPOSURE TO WORK PLACE CHEMICALS ARE PREFERRED. METHODS INCLUDE MECHANICAL [LOCAL EXHAUST] VENTILLATION, PROCESS - PERSONNEL ENCLOSURES AND CONTROL OF PROCESS CONDITIONS. ADMINISTRATIVE CONTROL MAY ALSO BE REQUIRED. SUPPLY SUFFICIENT REPLACEMENT AIR TO MAKE - UP FOR AIR REMOVED BY EXHAUST SYSTEM.

FACILITIES SHOULD BE EQUIPPED WITH EYEWASH AND SAFETY SHOWER FACILITIES. APPROPRIATE EQUIPMENTS SHOULD BE AVAILABLE FOR USE IN EMERGENCIES SUCH AS SPILLS OR FIRE EXPOSURE LIMITS.

SECTION 9 : PHYSICAL & CHEMICAL PROPERTIES

APPEARANCE	:	WHITE SOLID
MOLECULAR FORMULA	:	C ₅ H ₆ O ₅
MOLECULAR WEIGHT	:	146.10
MELTING RANGE °C	:	130 TO 133
THERMAL DECOMPOSITION	:	138°C
FLASH POINT °C	:	>110
EXPLOSION LIMITS LOWER / UPPER	:	NOT AVAILABLE
SELF IGNITION	:	NOT AVAILABLE
SOLUBILITY	:	SOLUBLE IN WATER, ALCOHOL, ETHER
PH	:	ACIDIC

SECTION 10 : STABILITY & REACTIVITY DATA

CHEMICAL STABILITY	:	STABLE UNDER NORMAL STORAGE CONDITIONS AT OR BELOW 10 °C.
CONDITIONS TO AVOID	:	HEAT, SPARK, OPEN FLAME, SOURCES OF IGNITION, INCOMPATIBLE MATERIALS.
INCOMPATIBILITY WITH	:	AMINES, BASES, ACIDS, OXIDIZERS, AMINES CATALYSE THE DECOMPOSITION OF THE PRODUCT THAT MAY BE VOILENT.
HAZARDOUS DECOMPOSITION PRODUCTS	:	ACETONE, ACETOACETIC ACID, CARBON DIOXIDE.

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SECTION 11 : TOXICOLOGICAL INFORMATION

TO THE BEST OF OUR KNOWLEDGE, THE TOXICOLOGICAL PROPERTIES OF THIS PRODUCT HAVE NOT BEEN THOROUGHLY INVESTIGATED.

SINCE THE MANNER IN WHICH, EXPOSURE LIMITS ARE ESTABLISHED, INTERPRETED, IMPLEMENTED CAN VARY, OBTAIN DETAILED INFORMATION FROM APPROPRIATE AGENCIES IN EACH JURISDICTION.

SECTION 12 : ECOLOGICAL INFORMATION

NO INFORMATION AVAILABLE. HOWEVER, DO NOT RELEASE MATERIAL TO THE ENVIRONMENT, WITHOUT PROPER GOVERNMENTAL PERMITS.

SECTION : 13 DISPOSAL CONSIDERATIONS

CHEMICAL WASTE GENERATORS MUST DETERMINE WHETHER DISCARDED CHEMICAL WASTE IS CLASSIFIED AS A HAZARDOUS WASTE. US - EPA GUIDELINES FOR THE CLASSIFICATION DETERMINATION ARE LISTED IN 40 CFR PARTS 261.3. ADDITIONALLY, WASTE GENERATORS MUST CONSULT STATE AND LOCAL HAZARDOUS WASTE REGULATIONS TO ENSURE COMPLETE AND ACCURATE CLASSIFICATION.

SECTION : 14 TRANSPORT INFORMATION

THIS PRODUCT IS NOT CLASSIFIED AS DANGEROUS GOODS FOR TRANSPORTATION BY AIR & SEA. DUE TO THE UNSTABILITY OF THE PRODUCT, IT HAS TO BE SHIPPED UNDER REFRIGERATED CONDITION.

SECTION : 15 REGULATORY INFORMATION

PLEASE REFER TO SECTION 3,4,5 OF MSDS

SECTION : 16 ADDITIONAL INFORMATION

THIS DOCUMENT IS INTENDED ONLY AS A GUIDE TO THE APPROPRIATE PRECAUTIONARY HANDLING OF MATERIAL BY A PERSON TRAINED IN CHEMICAL HANDLING. THE USER IS RESPONSIBLE FOR DETERMINING THE PRECAUTIONS & DANGERS OF THIS CHEMICAL FOR HIS OR HER PARTICULAR APPLICATION DEPENDING ON USAGE. ADEQUATE PROTECTIVE CLOTHING, INCLUDING EYE / FACE GUARDS, APPROVED RESPIRATORS MUST BE USED TO AVOID CONTACT WITH THE MATERIAL OR BREATHING CHEMICAL VAPOURS / FUMES.

EXPOSURE TO THIS PRODUCT MAY CAUSE ADVERSE HEALTH EFFECTS. THIS CHEMICAL MAY INTERACT WITH OTHER SUBSTANCES. SINCE THE POTENTIAL USES ARE SO VARIED, M/S. OMKAR SPECIALITY CHEMICALS LTD. CANNOT WARN OF ALL OF THE POTENTIAL DANGERS OF USE OR INTERACTION WITH CHEMICALS OF MATERIALS. M/S. OMKAR SPECIALITY CHEMICALS LTD. WARRANTS THAT, THE CHEMICAL MEETS THE SPECIFICATIONS SET FORTH ON THE TEST REPORT.

M/S. OMKAR SPECIALITY CHEMICALS LTD. DISCLAIMS ANY OTHER WARRANTIES EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR PURPOSE.

THE USER SHOULD RECOGNISE THAT, THIS PRODUCT CAN CAUSE SEVERE INJURY, ESPECIALLY IF IMPROPERLY HANDLED OR THE KNOWN DANGERS OF USE ARE NOT HEEDDED.

"READ ALL PRECAUTIONARY INFORMATIONS. "