

Revision number: 2 Revision date: 10/06/2014

1. IDENTIFICATION

2-Methyl-4'-(methylthio)-2-morpholinopropiophenone M2028

TCI AMERICA

SAFETY DATA SHEET

Product use: Restrictions on use:

Product name:

Product code:

Company: TCI America 9211 N. Harborgate Street Portland, OR 97203 U.S.A. Telephone: +1-800-423-8616 / +1-503-283-1681 Fax: +1-888-520-1075 / +1-503-283-1987 e-mail: sales-US@TCIchemicals.com www.TCIchemicals.com

2. HAZARD(S) IDENTIFICATION

OSHA Haz Com: CFR 1910.1200:

Acute Toxicity - Oral [Category 4] Aquatic Hazard (Acute) [Category 2] Aquatic Hazard (Long-Term) [Category 2]

Signal word:

Warning!

Hazard Statement(s):

Harmful if swallowed Toxic to aquatic life Toxic to aquatic life with long lasting effects

Pictogram(s) or Symbol(s):



Precautionary Statement(s): [Prevention] [Response] [Storage] [Disposal]

Do not eat, drink or smoke when using this product. Wash hands and face thoroughly after handling. If swallowed: Immediately call a poison center or doctor. Rinse mouth. None Dispose of contents and container in accordance with US EPA guidelines for the classification and determination of hazardous waste listed in 40 CFR 261.3. (See Section 13)

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/Mixture: Components: Percent: CAS Number: Molecular Weight: Chemical Formula: Synonyms: Substance 2-Methyl-4'-(methylthio)-2-morpholinopropiophenone >98.0%(GC)(T) 71868-10-5 279.40 C₁₅H₂₁NO₂S 2-Methyl-1-[4-(methylthio)phenyl]-2-morpholino-1-propanone

For laboratory research purposes. Not for drug or household use.

Emergency telephone number: Chemical Emergencies: TCI America (8:00am - 5:00pm) PST +1-503-286-7624 Transportation Emergencies: Chemtrec 24-Hour +1-800-424-9300 (U.S.A.) +1-703-527-3887 (International) Responsible department: TCI America Environmental Health Safety and Security +1- 503-286-7624

| 4. FIRST-AID MEASURES | |
|---|---|
| Inhalation: | Call emergency medical service. Move victim to fresh air. Give artificial respiration if victim is not breathing Administer oxygen if breathing is difficult. Keep victim warm and quiet. Treat symptomatically and supportively. Ensure that medical personnel are aware of the material(s) involved and take precautions to |
| Skin contact: | protect themselves. Call a poison center or doctor if you feel unwell. Remove and isolate contaminated clothing and shoes. In case of contact with substance, immediately flush skin with running water for at least 20 minutes. Treat symptomatically and supportively. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. |
| Eye contact: | If this chemical contacts the eyes, immediately wash (irrigate) the eyes with large amounts of water, occasionally lifting the lower and upper eyelids. If eye irritation persists get medical advice/attention. Move victim to fresh air. Check for and remove any contact lenses. Keep victim warm and quiet. Treat symptomatically and supportively. Effects of exposure to substance may be delayed. Ensure that medical |
| Ingestion: | personnel are aware of the material(s) involved and take precautions to protect themselves. Harmful if swallowed. If swallowed, seek medical advice immediately and show the container or label. Do not use mouth-to-mouth method if victim ingested the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Loosen tight clothing such as a collar, tie, belt or waistband. If a person vomits place them in the recovery position so that vomit will not reenter the mouth and throat. Rinse mouth. Keep victim warm and quiet. Treat symptomatically and supportively. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. |
| Symptoms/effects: | |
| Acute: Delayed: | No data available No data available |
| Immediate medical attention: | WARNING: It might be hazardous to the person providing aid to give mouth-to-mouth respiration, because the inhaled material is harmful. If breathing has stopped, perform artificial respiration. Use first aid treatment according to the nature of the injury. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. |
| 5. FIRE-FIGHTING MEASURES | |
| Suitable extinguishing media: | Dry chemical, CO_2 , sand, earth, water spray or regular foam Consult with local fire authorities before attempting large scale fire fighting operations. |
| Specific hazards arising from the chen Hazardous combustion products: Other specific hazards: | nical These products include: Carbon oxides Nitrogen oxides Silicates Closed containers may explode from heat of a fire. |
| Special precautions for fire-fighters: Use water spray or fog; do not use straighters from fire area if | ht streams. Dike fire-control water for later disposal; do not scatter the material. Containers may explode when |

heated. Move containers from fire area if you can do it without risk. Special protective equipment for fire-fighters:

Wear positive pressure self-contained breathing apparatus (SCBA). Structural fire fighters' protective clothing provides limited protection in fire situations ONLY; it may not be effective in spill situations. Wear chemical protective clothing which is specifically recommended by the manufacturer. It may provide little or no thermal protection.

6. ACCIDENTAL RELEASE MEASURES

| Personal precautions: | Avoid contact with skin, eyes, and clothing. Keep people away from and upwind of spill/leak. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing (Section 8). Warn unnecessary personnel to move away. Stop leak if you can do it without risk. Ensure adequate ventilation. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. |
|--------------------------------|--|
| Personal protective equipment: | Safety glasses. Lab coat. Dust respirator. Be sure to use a MSHA/NIOSH approved respirator or equivalent. Wear protective gloves (nitrile). |
| Emergency procedures: | Prevent dust cloud. In case of a spill and/or a leak, always shut off any sources of ignition, ventilate the area, and excercise caution. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Warn personnel to move away. Prevent entry into sewers, basements or confined areas; dike if needed. |

Methods and materials for containment and cleaning up:

ELIMINATE all ignition sources (no smoking, flares, sparks, or flames in immediate area). Stop leak if without risk. Absorb with an inert material and put the spilled material in an appropriate waste disposal container. Use clean non-sparking tools to collect absorbed material. Dike far ahead of spill; use dry sand to contain the flow of material. Ventilate the area.

Environmental precautions:

Keep away from living quarters. Environmental hazard. Do not let product enter drains. Prevent further leakage or spillage if safe to do so. Water runoff can cause environmental damage. Prevent entry into sewers, basements or confined areas; dike if needed.

7. HANDLING AND STORAGE Precautions for safe handling: Avoid inhalation of vapor or mist. Do not ingest. Avoid contact with skin and eyes. Good general ventilation should be sufficient to control airborne levels. Keep container dry. Handle and open container with care. Wear suitable protective clothing, gloves and eye/face protection. When using do not eat, drink, or smoke. Keep away from sources of ignition. Conditions for safe storage: Keep only in the original container in a cool well-ventilated place. Keep away from incompatibles. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Avoid prolonged storage periods. Storage incompatibilities: Store away from oxidizing agents

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Appropriate engineering controls:

Good general ventilation should be sufficient to control airborne levels. Ventilation is normally required when handling or using this product. Eyewash fountains should be provided in areas where there is any possibility that workers could be exposed to the substance. Follow safe industrial engineering/laboratory practices when handling any chemical.

Personal protective equipment

Respiratory protection:Dust respirator. Be sure to use a MSHA/NIOSH approved respirator or equivalent.Hand protection:Wear protective gloves.Eye protection:Safety glasses.Skin and body protection:Lab coat.

9. PHYSICAL AND CHEMICAL PROPERTIES

| Physical state (20°C): Form: Color: Odor: Odor threshold: | Solid Crystal - Powder White - Very pale yellow No data available No data available | | | |
|--|---|---|---|--|
| Melting point/freezing point: Boiling point/range: Decomposition temperature: Relative density: Kinematic Viscosity: | 75°C (167°F) 210°C (410°F)/10kPa No data available No data available No data available No data available | pH: Vapor pressure: Vapor density: Dynamic Viscosity | : | No data available No data available No data available No data available |
| Partition coefficient: n-octanol/water (log Pow) | No data available | Evaporation rate: (Butyl Acetate = 1) | | No data available |
| Flash point: Flammability (solid, gas): | No data available No data available | Autoignition tempe Flammability or ex Lower: Upper: | | |
| | | oppon | | |

Solubility(ies):

10. STABILITY AND REACTIVITY

Reactivity: Chemical Stability: Possibility of Hazardous Reactions: Conditions to avoid: Incompatible materials: Hazardous Decomposition Products: Not Available. Moisture sensitive. Light sensitive. No hazardous reactivity has been reported. Exposure to light. Exposure to moisture. Moisture sensitive. Oxidizing agents No data available

11. TOXICOLOGICAL INFORMATION

| 2-Methyl-4'-(methyl morpholinopropiop | | TCI AMI | ERICA | | Page 4 of 5 |
|--|--|---|---|--|---|
| Acute Toxicity: No data available | | | | | |
| Skin corrosion/irrita No data available | ation: | | | | |
| Serious eye damag No data available | e/irritation: | | | | |
| Respiratory or skin No data available | sensitization: | | | | |
| Germ cell mutageni No data available | city: | | | | |
| Carcinogenicity: | | | | | |
| No data available | | | | | |
| IARC: No da | ta available | NTP: | No data available | OSHA: | No data available |
| Reproductive toxici No data available | ty: | | | | |
| Potential Health Eff | o exposure: esult in serious illness o ects: | | itact, Ingestion. t in irriatation. May be harmi | ful if inhaled or ingeste | d. |
| 12. ECOLOGICAL | INFORMATION | | | | |
| Ecotoxicity Fish: | | No data available | | | |
| Crustacea: Algae: | | No data available No data available | | | |
| Persistence and de Bioaccumulative po Mobillity in soil: Partition coefficient n-octanol/water (log Soil adsorption (Ko | otential (BCF): :: g Pow) | No data available No data available No data available No data available No data available | | | |
| Henry's Law: constant (PaM ³ /mol | | No data available | | | |
| | , | | | | |
| 13. DISPOSAL CO | ONSIDERATIONS | | | |] |
| Disposal of product | : | rules and regulation chemical incinerato assistance but doe regulatory complian Waste are listed in water ways, or the | ns. You may be able to disso or equipped with an afterburn s not replace these laws, not nce according to the law. US 40 CFR Parts 261. The proc soil. | blve or mix material wit aer and scrubber syste r does compliance in a EPA guidelines for Ida duct should not be allow | mply with Federal, State and Local h a combustible solvent and burn in a m. This section is intended to provide ccordance with this section ensure entification and Listing of Hazardous wed to enter the environment, drains, |
| Disposal of contain Other consideration | | | ed product. Do not re-use er , state and local regulations | | substance. |
| 14. TRANSPORT | INFORMATION | | | | |
| | | | | | |
| DOT (US) UN number: UN3077 | Proper Shipping Na Environmentally haza n.o.s. | | Class or Division: lid, 9 Miscellaneous hazardo material | Packing Group bus III | : |
| ΙΑΤΑ | | | | | |

| 14. TRANSPORT II UN number: UN3077 IMDG UN number: | NFORMATION Proper Shipping Name: Environmentally hazardous substance, solid, n.o.s. Proper Shipping Name: Environmentally hazardous substance, solid, n.o.s. | material Class or Division: | Packing Group: | |
|---|--|---|-----------------------|--|
| UN number: UN3077 IMDG UN number: | Proper Shipping Name: Environmentally hazardous substance, solid, n.o.s. Proper Shipping Name: Environmentally hazardous substance, solid, | 9 Miscellaneous hazardous material Class or Division: | | |
| UN number: | Environmentally hazardous substance, solid, | | | |
| UN3077 | | material | Packing Group: III | |
| EmS number: | F-A, S-F | | | |
| 15. REGULATORY | INFORMATION | | | |
| Toxic Substance Cor This product is ON the | ntrol Act (TSCA 8b.): e EPA Toxic Substances Control Act (TSCA) | nventory. | | |
| US Federal Regulation | ons | | | |
| CERCLA Hazardous SARA 313: SARA 302: | substance and Reportable Quantity: Not Listed Not Listed | | | |
| State Regulations | | | | |
| State Right-to-Know | | | | |
| Massachusett New Jersey Pennsylvania California Propositio | Not Listed Not Listed | | | |
| Other Information | | | | |
| NFPA Rating: | | HMIS Classification: | | |
| Health: 1 Flammability: 0 Instability: 0 | | Health: 1 Flammability: 0 Physical: 0 | | |
| International Invento | ries | | | |
| WHMIS hazard class Canada: DSL EC-No: | : D2A: Materials causin On DSL 400-600-6 | g other toxic effects. (Very To | xic) | |
| 16. OTHER INFOR | MATION | | | |

Revision date: 10/06/2014

Revision number: 2

TCI chemicals are for research purposes only and are NOT intended for use as drugs, food additives, households, or pesticides. The information herein is believed to be correct, but does not claim to be all inclusive and should be used only as a guide. Neither the above named supplier nor any of its affiliates or subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All chemical reagents must be handled with the recognition that their chemical, physiological, toxicological, and hazardous properties have not been fully investigated or determined. All chemical reagents should be handled only by individuals who are familiar with their potential hazards and who have been fully trained in proper safety, laboratory, and chemical handling procedures. Although certain hazards are described herein, we can not guarantee that these are the only hazards which exist. Our SDS are based only on data available at the time of shipping and are subject to change without notice as new information is obtained. Avoid long storage periods since the product is subject to degradation with age and may become more dangerous or hazardous. It is the responsibility of the user to request updated SDS for products that are stored for extended periods. Disposal of unused product must be undertaken by qualified personnel who are knowledgeable in all applicable regulations and follow all pertinent safety precautions including the use of appropriate protective equipment (e.g. protective goggles, protective clothing, breathing equipment, face mask, fume hood). For proper handling and disposal, always comply with federal, state and local regulations.