

**SAFETY DATA SHEET**

According to 1907/2006/EC, Article 31

Revision number: 2

Revision date: 01/08/2019

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifiers**

**Product name:** Isobutene (ca. 8% in Dichloromethane)  
**Product code:** I0909

**1.2 Relevant identified uses of the substance or mixture and uses advised against**

**Identified uses:** Reagents.

**1.3 Details of the supplier of the safety data sheet****Supplier:**

TCI EUROPE N.V.  
 Boerenveldseweg 6  
 Haven 1063  
 B-2070 Zwijndrecht  
 Telephone: +32(0)3 735 07 00  
 E-mail: sales-eu@tcichemicals.com

**1.4 Emergency telephone number:** +32(0)70 245 245

**SECTION 2: Hazards identification****2.1 Classification of the substance or mixture**

<b>Acute toxicity (Oral)</b>	Category 4
<b>Skin corrosion/irritation</b>	Category 2
<b>Serious eye damage/eye irritation</b>	Category 2
<b>Germ cell mutagenicity</b>	Category 2
<b>Carcinogenicity</b>	Category 1B
<b>Specific target organ toxicity - Single exposure [Category 1]</b>	Respiratory system, Central nervous system
<b>Specific target organ toxicity - Repeated exposure [Category 1]</b>	Liver, Central nervous system
<b>Specific target organ toxicity - Repeated exposure [Category 2]</b>	Blood
<b>Long-term aquatic hazard</b>	Category 2

**2.2 Label elements****Pictograms or hazard symbols****Signal word**

Danger

**Hazard statements**

H302-Harmful if swallowed.  
 H315-Causes skin irritation.  
 H319-Causes serious eye irritation.  
 H341-Suspected of causing genetic defects.  
 H350-May cause cancer.  
 H370-Causes damage to organs : Respiratory system Central nervous system  
 H372-Causes damage to organs through prolonged or repeated exposure : Liver Central nervous system

**Precautionary statements**

H373-May cause damage to organs through prolonged or repeated exposure : Blood  
 H411-Toxic to aquatic life with long lasting effects.  
 P260-Do not breathe mist, vapours or spray.  
 P270-Do not eat, drink or smoke when using this product.  
 P280-Wear protective gloves, protective clothing, face protection.  
 P302+P352+P332+P313+P362+P364-IF ON SKIN: Wash with plenty of water. If skin irritation occurs: Get medical advice or attention. Take off contaminated clothing and wash it before reuse.  
 P305+P351+P338+P337+P313-IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice or attention.  
 P308+P311-If exposed or concerned: Call a POISON CENTER or doctor.

### 2.3 Other hazards

#### Results of PBT and vPvB assessment

PBT:	Not applicable
vPvB:	Not applicable

### SECTION 3: Composition/information on ingredients

#### 3.2 Mixtures

<b>Components:</b>	Isobutene (ca. 8% in Dichloromethane)
<b>Percent:</b>	....
<b>CAS RN:</b>	115-11-7
<b>EC-No:</b>	204-066-3
<b>Synonyms:</b>	2-Methylpropene (ca. 8% in Dichloromethane) , Isobutylene (ca. 8% in Dichloromethane)
<b>Chemical Formula:</b>	C <sub>4</sub> H <sub>8</sub>
<b>Hazardous composition:</b>	<b>Chemical name: Dichloromethane</b> Conc.: < 92% CAS RN:75-09-2 EC No.: 200-838-9 Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2, Muta. 2, Carc. 2, STOT SE 1, STOT RE 1, Aquatic Chronic 2 H302: Harmful if swallowed. H315: Causes skin irritation. H319: Causes serious eye irritation. H341: Suspected of causing genetic defects. H350: May cause cancer. H370: Causes damage to Respiratory system, Central nervous system. H372: Causes damage to Liver, Central nervous system through prolonged or repeated exposure. H373: May cause damage to Blood through prolonged or repeated exposure. H411: Toxic to aquatic life with long lasting effects.

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

<b>Inhalation:</b>	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician.
<b>Skin contact:</b>	Remove/Take off immediately all contaminated clothing. Gently wash with plenty of soap and water. Call a POISON CENTER or doctor/physician.
<b>Eye contact:</b>	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Call a POISON CENTER or doctor/physician.
<b>Ingestion:</b>	Call a POISON CENTER or doctor/physician. Rinse mouth.
<b>Protection of first-aiders:</b>	A rescuer should wear personal protective equipment, such as rubber gloves and air-tight goggles.

#### 4.2 Most important symptoms and effects, both acute and delayed

No data available

#### 4.3 Indication of any immediate medical attention and special treatment needed

No data available

### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

**Suitable extinguishing media:** Dry chemical, foam, water spray, carbon dioxide.

#### 5.2 Special hazards arising from the substance or mixture

Carbon monoxide, carbon dioxide etc

#### 5.3 Advice for firefighters

Fire-extinguishing work is done from the windward and the suitable fire-extinguishing method according to the surrounding situation is used. Uninvolved persons should evacuate to a safe place. In case of fire in the surroundings: Remove movable containers if safe to do so. When extinguishing fire, be sure to wear personal protective equipment

### SECTION 6: Accidental release measures

#### 6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Keep people away from and upwind of spill/leak. Ensure adequate ventilation. Entry to non-involved personnel should be controlled around the leakage area by roping off, etc

#### 6.2 Environmental precautions

Be careful not to let it flow into rivers, etc., since adverse effects on the environment are concerned

#### 6.3 Methods and materials for containment and cleaning up

Absorb spilled material in a suitable absorbent (e.g. rag, dry sand, earth, saw-dust). In case of large amount of spillage, contain a spill by bunding. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.

#### 6.4 Reference to other sections

For disposal see section 13.

## SECTION 7: Handling and storage

<b>7.1 Precautions for safe handling</b>	Handling is performed in a well ventilated place. Wear suitable protective equipment. Prevent generation of vapour or mist. Wash hands and face thoroughly after handling. Use a closed system if possible. Use a ventilation, local exhaust if vapour or aerosol will be generated. Avoid all contact! May develop pressure. Open carefully.
<b>7.2 Conditions for safe storage, including any incompatibilities</b>	Keep container tightly closed. Store in a refrigerator. Store locked up. Store away from incompatible materials such as oxidizing agents. Heat-sensitive
<b>7.3 Specific end use(s)</b>	No further relevant information available.

## SECTION 8: Exposure controls/personal protection

<b>8.1 Control parameters</b>	No data available (Dichloromethane) ACGIH TLV(TWA):50 ppm
<b>8.2 Exposure controls</b>	Install a closed system or local exhaust. Also install safety shower and eye bath.
<b>Respiratory protection:</b>	Half or full facepiece respirator, self-contained breathing apparatus(SCBA), supplied air respirator, etc. Use respirators approved under appropriate government standards and follow local and national regulations.
<b>Hand protection:</b>	Impervious gloves.
<b>Eye protection:</b>	Safety goggles. A face-shield, if the situation requires.
<b>Skin and body protection:</b>	Impervious protective clothing. Protective boots, if the situation requires.

## SECTION 9: Physical and chemical properties

<b>9.1 Information on basic physical and chemical properties</b>	
<b>Physical state (20°C):</b>	Liquid
<b>Form:</b>	Clear
<b>Colour:</b>	Colorless - Very pale yellow
<b>Odour:</b>	No data available
<b>pH:</b>	No data available
<b>Melting point/freezing point:</b>	No data available (Dichloromethane) -95°C
<b>Boiling point/range:</b>	No data available (Dichloromethane) 39°C
<b>Flash point:</b>	No data available
<b>Evaporation rate(Butyl Acetate=1):</b>	No data available
<b>Flammability(solid, gas):</b>	No data available
<b>Flammability or explosive limits:</b>	
<b>Lower:</b>	No data available
<b>Upper:</b>	No data available
<b>Vapour pressure:</b>	No data available.
<b>Vapour density:</b>	No data available
<b>Relative density:</b>	1.21
<b>Solubility(ies):</b>	
<b>[Water]</b>	No data available
<b>[Other solvents]</b>	No data available
<b>Partition coefficient: n-octanol/water:</b>	No data available (Dichloromethane) 1.25
<b>Autoignition temperature:</b>	No data available
<b>Decomposition temperature:</b>	No data available
<b>Dynamic Viscosity:</b>	No data available
<b>Kinematic viscosity:</b>	No data available
<b>9.2 Other safety information</b>	No data available

## SECTION 10: Stability and reactivity

10.1 Reactivity	No data available
10.2 Chemical stability	Stable under proper conditions.
10.3 Possibility of hazardous reactions	No special reactivity has been reported.
10.4 Conditions to avoid	No data available
10.5 Incompatible materials	Oxidizing agents, Strong acids, Strong bases, Halogens, Light metals
10.6 Hazardous decomposition products	Carbon monoxide, carbon dioxide etc

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

<b>Acute Toxicity:</b>	No data available (Dichloromethane) orl-rat LD50:1600 mg/kg orl-hmn LDLo:357 mg/kg ihl-rat LC50:76000 mg/m <sup>3</sup> /4H
<b>Skin corrosion/irritation:</b>	No data available (Dichloromethane) skn-rbt 810 mg/24H SEV
<b>Serious eye damage/irritation:</b>	No data available (Dichloromethane) eye-rbt 162 mg MOD
<b>Respiratory or skin sensitization:</b>	No data available
<b>Germ cell mutagenicity:</b>	No data available (Dichloromethane) dni-hmn-fbr 5000 ppm/1H-C mmo-sat 5700 ppm (+/-S9) sce-ham-Ing 5000 ppm/1H-C
<b>Carcinogenicity:</b>	
IARC =	No data available
NTP =	No data available (Dichloromethane) ihl-rat TCLo : 3500 ppm/6H/2Y-I IARC = 2A NTP = b
<b>Reproductive toxicity:</b>	No data available
<b>STOT-single exposure:</b>	No data available
<b>STOT-repeated exposure:</b>	No data available
<b>Aspiration hazard:</b>	No data available

## SECTION 12: Ecological information

<b>12.1 Toxicity</b>	
Fish:	No data available
Crustacea:	No data available
Algae:	No data available
<b>12.2 Persistence and degradability</b>	No data available
<b>12.3 Bioaccumulative potential</b>	No data available
<b>12.4 Mobility in soil</b>	
Log Pow:	No data available
Soil adsorption (Koc):	No data available
Henry's Law (PaM <sup>3</sup> /mol):	No data available
<b>12.5 Results of PBT and vPvB assessment</b>	
PBT:	Not applicable
vPvB:	Not applicable
<b>12.6 Other adverse effects</b>	No data available

**SECTION 13: Disposal considerations**

**13.1 Waste treatment methods**

Recycle to process, if possible. Consult your local regional authorities. Observe all federal, state and local regulations when disposing of the substance.

**SECTION 14: Transport information**

**14.1 UN number**

1593

**14.2 UN proper shipping name**

**ADR/RID** Dichloromethane solution  
**IMDG/IMO** Dichloromethane solution  
**ICAO/IATA** Dichloromethane solution

**14.3 Transport hazard class(es)**

**ADR/RID** 6.1: Toxic substance  
**IMDG/IMO** 6.1: Toxic substance  
**ICAO/IATA** 6.1: Toxic substance

**14.4 Packaging group**

**ADR/RID** III  
**IMDG/IMO** III  
**ICAO/IATA** III

**14.5 Environmental hazards**

**Marine pollutant** Y

**14.6 Special precautions for user**

No data available

**SECTION 15: Regulatory information**

**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

**Substance of Very High Concern (SVHC) according to the REACH Regulations (EC) No.1907/2006** Not listed

**15.2 Chemical safety assessment**

A chemical safety assessment has not been carried out.

**SECTION 16: Other information**

**Prepared by:**

TCI EUROPE N.V.

**Issue date:**

01/08/2019

This SDS was prepared sincerely on the basis of the information we could obtain, however, any warranty shall not be given regarding the data contained and the assessment of hazards and toxicity. Prior to use, please investigate not only the hazards and toxicity information but also the laws and regulations of the organization, area and country where the products are to be used, which shall be given the first priority. The products are supposed to be used promptly after purchase in consideration of safety. Some new information or amendments may be added afterwards. If the products are to be used far behind the expected time of use or you have any questions, please feel free to contact us. The stated cautions are for normal handling only. In case of special handling, sufficient care should be taken, in addition to the safety measures suitable for the situation. All chemical products should be treated with the recognition of "having unknown hazards and toxicity", which differ greatly depending on the conditions and handling when in use and/or the conditions and duration of storage. The products must be handled only by those who are familiar with specialized knowledge and have experience or under the guidance of those specialists throughout use from opening to storage and disposal. Safe usage conditions shall be set up on each user's own responsibility.

**End of Safety Data Sheet**