# IRMCO ® 980-020

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Date of issue: 6/1/2018 Revision date: 5/24/2018 Supersedes: 12/17/2015 Version: 2.0

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1. Product identifier

Product form : Mixture

Product name : IRMCO ® 980-020

Product code : F980-020

Product group : Trade product

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

#### 1.2.1. Relevant identified uses

Industrial/Professional use spec : Industrial
For professional use only

Use of the substance/mixture : This product is a water-based metalworking lubricant containing additives for corrosion inhibition, metalworking performance, film strength, and fluid preservation. There is no petroleum oil content in this product.

#### 1.2.2. Uses advised against

No additional information available

### 1.3. Details of the supplier of the safety data sheet

IRMCO
2117 Greenleaf Street
60202 Evanston, IL - USA
T 847-864-0255 - F 847-864-0012
SDS@irmco.com - www.IRMCO.com

### 1.4. Emergency telephone number

Emergency number : 847-864-0255
Monday-Friday 8:30 AM - 4:30 PM Central Standard Time (CST)

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

**Classification according to Regulation (EC) No. 1272/2008 [CLP]**

| | |
|---|---|
| Skin corrosion/irritation Category 2 | H315 |
| Serious eye damage/eye irritation Category 2 | H319 |
| Skin sensitization, Category 1 | H317 |

Full text of H statements : see section 16

**Adverse physicochemical, human health and environmental effects**

No additional information available

### 2.2. Label elements

**Labeling according to Regulation (EC) No. 1272/2008 [CLP]**

Hazard pictograms (CLP) :

GHS07

Signal word (CLP) : Warning

Hazardous ingredients : 1,2-benzisothiazol-3(2H)-one

Hazard statements (CLP) : H315 - Causes skin irritation
H317 - May cause an allergic skin reaction
H319 - Causes serious eye irritation

Precautionary statements (CLP) : P261 - Avoid breathing dust, mist, spray.
P264 - Wash hands thoroughly after handling.
P272 - Contaminated work clothing should not be allowed out of the workplace.
P280 - Wear protective gloves.
P302+P352 - IF ON SKIN: Wash with plenty of soap and water.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove

contact lenses, if present and easy to do. Continue rinsing.
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
P337+P313 - If eye irritation persists: Get medical advice/attention.
P362+P364 - Take off contaminated clothing and wash it before reuse.
P501 - Dispose of contents/container to an approved waste disposal plant

### 2.3. Other hazards

No additional information available

## SECTION 3: Composition/Information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

| Name | Product identifier | % | Classification according to Regulation (EC) No. 1272/2008 [CLP] |
|---|---|---|---|
| Triethanolamine (99.5%)<br>substance with national workplace exposure limit(s) (BE, ES, PT, SE) | (CAS-No.) 102-71-6<br>(EC-No.) 203-049-8<br>(REACH-no) 01-2119486482-31 | <=3.0 | Not classified |
| 1,2-benzisothiazol-3(2H)-one | (CAS-No.) 2634-33-5<br>(EC-No.) 220-120-9<br>(EC Index-No.) 613-088-00-6<br>(REACH-no) 01-2120761540-60 | < 0.1 | Skin Sens. 1, H317<br>Acute Tox. 4 (Oral), H302<br>Eye Dam. 1, H318<br>Skin Irrit. 2, H315<br>Aquatic Acute 1, H400 |

**Specific concentration limits:**

| Name | Product identifier | Specific concentration limits |
|---|---|---|
| 1,2-benzisothiazol-3(2H)-one | (CAS-No.) 2634-33-5<br>(EC-No.) 220-120-9<br>(EC Index-No.) 613-088-00-6<br>(REACH-no) 01-2120761540-60 | (C >= 0.05) Skin Sens. 1, H317 |

Full text of H-phrases: see section 16

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation : Allow victim to breathe fresh air. Allow the victim to rest.

First-aid measures after skin contact : Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical advice/attention.

First-aid measures after eye contact : 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/attention.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

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

Symptoms/effects : Not expected to present a significant hazard under anticipated conditions of normal use.

Symptoms/effects after inhalation : May cause respiratory irritation.

Symptoms/effects after skin contact : May cause an allergic skin reaction. Repeated exposure may cause skin dryness or cracking. May cause moderate irritation.

Symptoms/effects after eye contact : Causes serious eye irritation.

Symptoms/effects after ingestion : Irritation of the gastric/intestinal mucosa. On ingestion, may affect the liver and kidneys.

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

No additional information available

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.

Unsuitable extinguishing media : Do not use a heavy water stream.

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

No additional information available

### 5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

## SECTION 6: Accidental release measures

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

#### 6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

#### 6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

Emergency procedures : Ventilate area.

### 6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

### 6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Ensure adequate ventilation. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. Prolonged or repeated contact with the skin may cause dermatitis. Avoid breathing mist, spray.

Hygiene measures : Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Wash hands and other exposed areas thoroughly after handling. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Do not freeze. The liquid may freeze if stored outside. Store in a well-ventilated place. Keep container closed when not in use. Keep cool.

Incompatible products : Do not add nitrites or other nitrosating agents. Strong bases. Strong acids. Oxidizing agent.

### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

| **Triethanolamine (99.5%) (102-71-6)** | | |
|---|---|---|
| Portugal | Local name | Trietanolamina |
| Portugal | OEL TWA (mg/m³) | 5 mg/m³ |
| Spain | Local name | Trietanolamina |
| Spain | VLA-ED (mg/m³) | 5 mg/m³ |
| Sweden | Local name | Trietanolamin |
| Sweden | nivågränsvärde (NVG) (mg/m³) | 5 mg/m³ |
| Sweden | nivågränsvärde (NVG) (ppm) | 0.8 ppm |
| Sweden | kortidsvärde (KTV) (mg/m³) | 10 mg/m³ |
| Sweden | kortidsvärde (KTV) (ppm) | 1.6 ppm |
| Sweden | Anmärkning (SE) | H (Ämnet kan lätt upptas genom huden Det föreskrivna gränsvärdet bedöms ge tillräckligt skydd endast under förutsättning att huden är skyddad mot exponering för ämnet ifråga); V (Vägledande korttidsgränsvärde ska användas som ett rekommenderat högsta värde som inte bör överskridas) |

### 8.2. Exposure controls

| | | |
|---|---|---|
| Appropriate engineering controls | : | Ensure good ventilation of the work station to maintain airborne concentrations below exposure limits identified in Section 8.1. |
| Personal protective equipment | : | Safety glasses. Gloves. Avoid all unnecessary exposure. |
| Hand protection | : | Wear protective gloves. |
| Eye protection | : | Chemical goggles or safety glasses |
| Skin and body protection | : | Wear suitable protective clothing |
| Respiratory protection | : | In case of inadequate ventilation wear respiratory protection. |

| | | |
|---|---|---|
| Other information | : | Do not eat, drink or smoke during use. |

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

| | | |
|---|---|---|
| Physical state | : | Liquid |
| Appearance | : | clear. |
| Color | : | Colorless to Amber. |
| Odor | : | No data available |
| Odor threshold | : | No data available |
| pH | : | ≈ 8.2 |
| Relative evaporation rate (butyl acetate=1) | : | No data available |
| Melting point | : | No data available |
| Freezing point | : | ≈ 0 °C |
| Boiling point | : | ≈ 100 °C |
| Flash point | : | No data available |
| Auto-ignition temperature | : | No data available |
| Decomposition temperature | : | No data available |
| Flammability (solid, gas) | : | Non flammable. |
| Vapor pressure | : | No data available |
| Relative vapor density at 20 °C | : | No data available |
| Relative density | : | ≈ 0.99 |
| Specific gravity / density | : | ≈ 985 kg/m³ |
| Solubility | : | Soluble in water.<br>Water: 100 % |
| Log Pow | : | No data available |
| Viscosity, kinematic | : | ≈ 45.8 cSt @ 40ºC |
| Viscosity, dynamic | : | No data available |
| Explosive properties | : | No data available |
| Oxidizing properties | : | No data available |
| Explosion limits | : | No data available |

### 9.2. Other information

| | | |
|---|---|---|
| Refractive index | : | ≈ 1.357 |

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No additional information available

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

Do not add nitrites or other nitrosating agents. Addition of nitrites may lead to formation of nitrosamines, a substance known to be carcinogenic in laboratory animals.

### 10.4. Conditions to avoid

Extremely high or low temperatures.

### 10.5. Incompatible materials

Strong acids. Strong bases. Do not add nitrites or other nitrosating agents. Oxidizing agent.

### 10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide. Nitrogen oxides.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Not classified

| Triethanolamine (99.5%) (102-71-6) | |
|---|---|
| LD50 oral rat | 6400 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Male/female, Experimental value) |
| LD50 dermal rabbit | > 2000 mg/kg body weight (Equivalent or similar to OECD 402, Rabbit, Experimental value) |

| 1,2-benzisothiazol-3(2H)-one (2634-33-5) | |
|---|---|
| LD50 oral rat | 1020 mg/kg (Rat, Literature study) |

Skin corrosion/irritation : Causes skin irritation.
pH: ≈ 8.2

Serious eye damage/irritation : Causes serious eye irritation.
pH: ≈ 8.2

Respiratory or skin sensitization : May cause an allergic skin reaction.

Germ cell mutagenicity : Not classified
Based on available data, the classification criteria are not met

Carcinogenicity : Not classified

Additional information : Based on available data, the classification criteria are not met

Reproductive toxicity : Not classified

Additional information : Based on available data, the classification criteria are not met

Specific target organ toxicity – single exposure : Not classified

Additional information : Based on available data, the classification criteria are not met

Specific target organ toxicity – repeated exposure : Not classified

Additional information : Based on available data, the classification criteria are not met

Aspiration hazard : Not classified

Additional information : Based on available data, the classification criteria are not met

| IRMCO ® 980-020 | |
|---|---|
| Viscosity, kinematic | ≈ 45.8 mm²/s @ 40°C |

Potential Adverse human health effects and symptoms : Based on available data, the classification criteria are not met.

## SECTION 12: Ecological information

### 12.1. Toxicity

| Triethanolamine (99.5%) (102-71-6) | |
|---|---|
| LC50 fish 1 | 450 - 1000 mg/l (96 h, Lepomis macrochirus, Static system) |
| EC50 Daphnia 1 | 609.88 mg/l (ASTM E1192, 48 h, Ceriodaphnia dubia, Static system, Fresh water, Experimental value) |
| EC50 72h algae [mg/l] 1 | 216 mg/l (DIN 38412-9, Scenedesmus subspicatus, Static system, Fresh water, Experimental value) |

### 12.2. Persistence and degradability

| IRMCO ® 980-020 | |
|---|---|
| Persistence and degradability | Not established. |

| Triethanolamine (99.5%) (102-71-6) | |
|---|---|
| Persistence and degradability | Readily biodegradable in water. |
| Biochemical oxygen demand (BOD) | 0.02 g $O_2$/g substance |
| Chemical oxygen demand (COD) | 1.5 g $O_2$/g substance |

| Triethanolamine (99.5%) (102-71-6) | |
|---|---|
| ThOD | 2.04 g $O_2$/g substance |
| BOD (% of ThOD) | 0.02 |

| 1,2-benzisothiazol-3(2H)-one (2634-33-5) | |
|---|---|
| Persistence and degradability | Not readily biodegradable in water. |

### 12.3. Bioaccumulative potential

| IRMCO ® 980-020 | |
|---|---|
| Bioaccumulative potential | Not established. |

| Triethanolamine (99.5%) (102-71-6) | |
|---|---|
| BCF fish 1 | 0.4 - 3.9 (OECD 305: Bioconcentration: Flow-Through Fish Test, 42 day(s), Cyprinus carpio, Flow-through system, Fresh water, Experimental value) |
| Log Pow | -2.3 - 1.34 (Weight of evidence approach) |
| Bioaccumulative potential | Not bioaccumulative. |

| 1,2-benzisothiazol-3(2H)-one (2634-33-5) | |
|---|---|
| BCF fish 1 | 1.313 - 3.162 (BCFBAF v3.01, Calculated value, Fresh weight) |
| Log Pow | 1.3 (Experimental value) |
| Bioaccumulative potential | Low potential for bioaccumulation (Log Kow < 4). |

### 12.4. Mobility in soil

| Triethanolamine (99.5%) (102-71-6) | |
|---|---|
| Log Koc | 1 (log Koc, SRC PCKOCWIN v1.66, Calculated value) |
| Ecology - soil | Highly mobile in soil. |

| 1,2-benzisothiazol-3(2H)-one (2634-33-5) | |
|---|---|
| Ecology - soil | Adsorbs into the soil. |

### 12.5. Results of PBT and vPvB assessment

| Component | |
|---|---|
| (102-71-6) | This substance/mixture does not meet the PBT criteria of REACH, annex XIII<br>This substance/mixture does not meet the vPvB criteria of REACH, annex XIII |

### 12.6. Other adverse effects

Additional information : Avoid release to the environment.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Product/Packaging disposal recommendations : Do not re-use empty containers without proper cleaning or reconditioning. Dispose in a safe manner in accordance with local/national regulations.

Ecology - waste materials : Avoid release to the environment.

## SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

### 14.1. UN number

UN-No. (ADR) : Not regulated
UN-No. (IMDG) : Not regulated
UN-No. (IATA) : Not regulated
UN-No. (ADN) : Not regulated
UN-No. (RID) : Not regulated

### 14.2. UN proper shipping name

Proper Shipping Name (ADR) : Not regulated
Proper Shipping Name (IMDG) : Not regulated
Proper Shipping Name (IATA) : Not regulated
Proper Shipping Name (ADN) : Not regulated
Proper Shipping Name (RID) : Not regulated

### 14.3. Transport hazard class(es)

**ADR**

Transport hazard class(es) (ADR) : Not regulated

**IMDG**

Transport hazard class(es) (IMDG) : Not regulated

**IATA**

Transport hazard class(es) (IATA) : Not regulated

**ADN**

Transport hazard class(es) (ADN) : Not regulated

**RID**

Transport hazard class(es) (RID) : Not regulated

### 14.4. Packing group

Packing group (ADR) : Not regulated
Packing group (IMDG) : Not regulated
Packing group (IATA) : Not regulated
Packing group (ADN) : Not regulated
Packing group (RID) : Not regulated

### 14.5. Environmental hazards

Dangerous for the environment : No
Marine pollutant : No
Other information : No supplementary information available

### 14.6. Special precautions for user

**- Overland transport**

Not regulated

**- Transport by sea**

Not regulated

**- Air transport**

Not regulated

**- Inland waterway transport**

Not regulated

**- Rail transport**

Not regulated

### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

## SECTION 15: Regulatory information

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

#### 15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions
Contains no REACH candidate substance
Contains no REACH Annex XIV substances.

#### 15.1.2. National regulations

**Germany**

Reference to AwSV : Water hazard class (WGK) 1, slightly hazardous to water (Classification according to AwSV, Annex 1)

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

## SECTION 16: Other information

| | | |
|---|---|---|
| Data sources | : | REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labeling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006. |
| Other information | : | None. |

Full text of H- and EUH-phrases:

| | |
|---|---|
| Acute Tox. 4 (Oral) | Acute toxicity (oral) Category 4 |
| Aquatic Acute 1 | Hazardous to the aquatic environment - Acute Hazard Category 1 |
| Eye Dam. 1 | Serious eye damage/eye irritation Category 1 |
| Eye Irrit. 2 | Serious eye damage/eye irritation Category 2 |
| Skin Irrit. 2 | Skin corrosion/irritation Category 2 |
| Skin Sens. 1 | Skin sensitization, Category 1 |
| H302 | Harmful if swallowed |
| H315 | Causes skin irritation |
| H317 | May cause an allergic skin reaction |
| H318 | Causes serious eye damage |
| H319 | Causes serious eye irritation |
| H400 | Very toxic to aquatic life |

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

| | | |
|---|---|---|
| Skin Irrit. 2 | H315 | Calculation method |
| Eye Irrit. 2 | H319 | Calculation method |
| Skin Sens. 1 | H317 | Calculation method |

IRMCO SDS EU

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